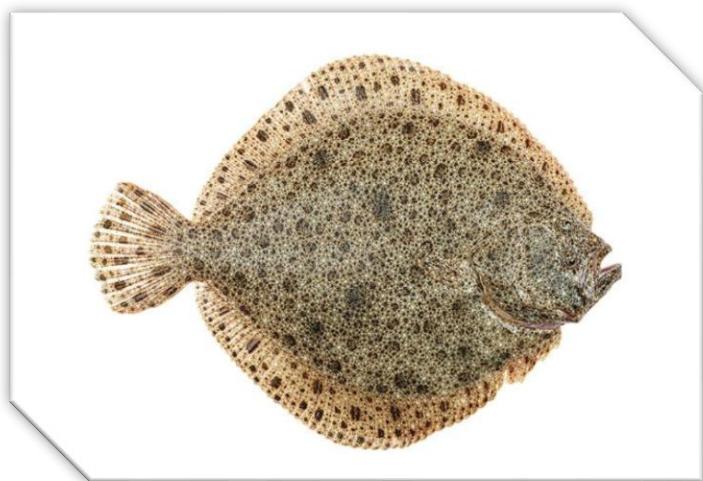


# Turbot

Turbot (*Scophthalmus maximus*) is a flatfish in the family of *Scophthalmidae* that lives in the saline to brackish water of the North Sea, Wadden Sea, and Baltic Sea (Kündler & Hengi, 1962; Martinsson & Nissling, 2011; Van der Veer et al., 2022). The Wadden Sea and Baltic Sea are used as a nursery ground by turbot, whereas full-grown individuals are more commonly found in the North Sea (De Boer & De Veen, 1970; Kündler & Hengi, 1962; Martinsson & Nissling, 2011; Müller, 1968; Van der Veer et al., 2022).



## History/ Population trends

The population of Turbot that inhabits the North Sea and Wadden Sea has declined during the last century (Kerby et al., 2013). No significant data was found on the speed of decline. However, Kerby et al. found significant changes in where Turbot could mainly be found during the last century (2013). For example, between the 1920s and 1960s, turbot was commonly caught in the northern North Sea and in particular on Turbot Bank, at that time a turbot hotspot off the east coast of Scotland (Kerby et al., 2013). Within a short time period turbot nearly disappeared from this region (Kerby et al., 2013). A possible reason for this occurrence can be found in an ICES rapport by De Boer and De Veen (1970). They found that, since 1962, the beam trawl had found increasing use as a fishing gear for catching flatfish and at the time of publication of their article, about 15 percent of the Dutch trawlers are equipped for beam trawling (De Boer & De Veen, 1970). Furthermore, since 1964, the average engine-power of the Dutch trawlers increased continuously (De Boer & De Veen, 1970). One of the authors started to reinvestigate the relative fishing power of Dutch beam trawlers (De Boer & De Veen, 1970). Provisional results show that engine power is the most important ship's parameter (as is the case in the Dutch otter trawl and herring trawl) (De Boer & De Veen, 1970).

## Miscellaneous

- The diet of juvenile and fully grown Turbot differs significantly. Full-grown Turbot primarily feed on a variety of fish species, whereas juvenile Turbot primarily feed on small crustaceans (Müller, 1968).
- According to Angling times, the largest Turbot caught weighed 36lb 7oz (2022).

## Diet

- Annelida (Adron et al., 1976; Müller, 1968)
- Bivalves (Adron et al., 1976; Müller, 1968)
- Crustaceans (Adron et al., 1976; Müller, 1968)
- Other detritivores (Adron et al., 1976; Müller, 1968)
- Small Fish (Müller, 1968)
- Sandeel (Müller, 1968)

## Sources

Adron, J., Blair, A., Cowey, C., & Shanks, A. M. (1976). Effects of dietary energy level and dietary energy source on growth, feed conversion and body composition of turbot (*Scophthalmus maximus* L.). *Aquaculture*, 7(2), 125–132. [https://doi.org/10.1016/0044-8486\(76\)90002-8](https://doi.org/10.1016/0044-8486(76)90002-8)

Angling times. (2022, August 30). *Top turbot is a British and Euro best – by 3lb! / Angling Times*. Angling Times. Retrieved December 10, 2024, from <https://www.anglingtimes.co.uk/news/stories/top-turbot-is-a-british-and-euro-best-by-3lb/>

De Boer, E. J., & De Veen, J. F. (1970). *On the fishing power of Dutch beam trawlers* [Journal-article]. Retrieved December 10, 2024, from [https://www.ices.dk/sites/pub/CM%20Documents/1970/Special%20Meeting%20on%20Measurement%20of%20Fishing%20Effort/1970\\_Special%20Meeting%20on%20Measurement%20of%20Fishing%20Effort%2011.pdf#search=Turbot](https://www.ices.dk/sites/pub/CM%20Documents/1970/Special%20Meeting%20on%20Measurement%20of%20Fishing%20Effort/1970_Special%20Meeting%20on%20Measurement%20of%20Fishing%20Effort%2011.pdf#search=Turbot)

Kerby, T. K., Cheung, W. W., Van Oosterhout, C., & Engelhard, G. H. (2013). Entering uncharted waters: Long-term dynamics of two data limited fish species, turbot and brill, in the North Sea. *Journal of Sea Research*, 84, 87–95. <https://doi.org/10.1016/j.seares.2013.07.005>

Kündler, R., & Hengi, T. (1962). The growth of the Turbot in the North Sea. In *ICES Journal of Marine Science*. Retrieved December 10, 2024, from [https://www.ices.dk/sites/pub/CM%20Documents/1962/C/1962\\_C52.pdf#search=Turbot](https://www.ices.dk/sites/pub/CM%20Documents/1962/C/1962_C52.pdf#search=Turbot)

Martinsson, J., & Nissling, A. (2011). Nursery area utilization by Turbot (*Psetta Maxima*) and flounder (*Platichthys Flesus*) at Gotland, Central Baltic Sea. *ICES Journal of Marine Science*.

[https://media.proquest.com/media/hms/PFT/1/1KrFN?\\_s=IUZhAHCAEmXM28iml47iR5rRAXI%3D](https://media.proquest.com/media/hms/PFT/1/1KrFN?_s=IUZhAHCAEmXM28iml47iR5rRAXI%3D)

Müller, A. (1968). Food Feeding und Growth of Juvenile Flatfish. In *International Council for the Exploration of the Sea*. Retrieved December 10, 2024, from

[https://www.ices.dk/sites/pub/CM%20Documents/1968/F/1968\\_F15.pdf#search=Turbot](https://www.ices.dk/sites/pub/CM%20Documents/1968/F/1968_F15.pdf#search=Turbot)

Van Der Veer, H., Tulp, I., Witte, J., Poiesz, S., & Bolle, L. (2022). Changes in functioning of the largest coastal North Sea flatfish nursery, the Wadden Sea, over the past half century. *Marine Ecology Progress Series*, 693, 183–201.

<https://doi.org/10.3354/meps14082>